

Agricultural.

T. H. HOSKINS, Newport, Vt., Editor.

A Good Showing.

This has been an off year for apples most everywhere, but here and there we hear of an orchardist who keeps his orchard well manured and has had a full crop and received the big prices that are got only in off years. The following is an instance happening to one in our own native town,—that is, if such a thing can be said to "happen": Richard Plaisted of Gardiner, Maine, will obtain this year of scarcity some eight or nine hundred barrels of apples from nine acres of orchard. He gives his trees extra feed and careful treatment. The trees are mostly Baldwins and are loaded with fruit. He manures his orchard liberally and mulches heavily.

Pluggers.

A plugger is a person who, in selling produce, attempts to deceive the buyer by introducing an inferior article, skillfully concealed by the better grades on top, which is intended to be a fair sample of the whole. Grain sold by the car-load is passed on inspectors' certificates and it is a common practice to plug it and deceive the unwary or careless inspector. An old inspector said the "outest trick" was to fill sacks with poor wheat and set them on end, mouth down, about the car; then fill in with good wheat to their top, draw out the sacks and add a liberal dressing, which gives all a good appearance. The inspector might probe thoroughly with his gauge tube and miss the foul.

In Trouble.

The fertilizer manufacturers have been in convention, and have come out of it with an "organization." They claim the business of manufacturing fertilizers is badly hampered with unjust laws. Among their grievances are the "estimated values" of the state inspectors, and they propose to have them abolished. They claim inspectors have exceeded their rights in reporting their examinations in the form of commercial money values. How this may be we do not know, but we do know that these estimates always favor the maker rather than the user. But as with all this the estimates do not bring the value up to the selling prices in one-half the cases, perhaps the makers are right in being mad about it.

Progress by Dr. Loring.

"The government commissioner of agriculture is making progress, though it is slow. He has so perfected matters that he can produce sorghum sugar at a cost of a dollar a pound. The difference between this and the six or eight cents a pound cost of common sugar is the difference yet to be overcome. At the rate thus far, it can be done within a few centuries." We cut the above from the New York Examiner. Is, then, the very same style of slurring that Dr. Loring's understrappers and "organs" indulged in towards Professor Collier's investigations (which have been so triumphantly vindicated) now to be turned against Loring and his new chemist? There are indeed, as a philosopher remarks, "many just judgments, the ministers of which are very unjust."

Poultry Statistics.

In the state of New York, according to the last state census—1875—the value of the poultry was in round numbers \$3,000,000; value of poultry sold in 1875 \$1,800,000; value of eggs sold in 1875, \$2,500,000. New York city alone consumes over 20,000 car-loads of poultry yearly. The capacity of a freight car is about ten tons; to be within bounds, allow half that amount to a car-load—five tons; and we have a total of 100,000 tons which, at ten cents per pound, gives us \$20,000,000 as the valuation of the poultry consumed every year in New York city. It also consumes over 300,000,000 of eggs, the value of the latter at average New York prices being \$8,000,000. The number of eggs produced yearly in the whole of the United States is upward of 9,000,000,000, valued at \$240,000,000. The value of the poultry consumed in the United States is estimated at \$300,000,000 per year. The total of the two items is \$540,000,000, representing the value of the poultry and eggs consumed yearly by the people of the United States.

Testing Jersey Breeds.

Orestes Pierce, in the Home Farm, says that the American Jersey cattle club has now taken official notice of these records, and upon application send its representatives to those who have cows to test, place the report upon its records and become the guarantee of its correctness. The writer is now acting in this capacity, testing the cow Handsome Myra for Mr. C. Wellington, East Lexington, Mass. This cow is likely to reach a yield of twenty-one pounds. It may be interesting to here note the methods used. Each milking is done in the presence of the agent, who at the finish takes charge of the milk, which never passes to other hands until made into butter and weighed; all utensils are in his charge and everything under seal. For scientific purposes and data all details of temperature are kept, likewise kind, quantity and quality of food; the physical condition of the cow is also noted. A report of all these matters in detail is sworn to and forwarded to the secretary of the club by its agent.

Our Workingmen.

The Springfield Republican is a many-headed concern, and expresses quite opposite opinions in its editorial columns.

Consistency is not its jewel, and it often sneers at workingmen and their interests, but the following little extract shows that some of its writers occasionally have a sense of the real issues of the times:

"The workingmen of this country are mainly honest, simple and trustworthy—the great body of the people are as peaceful as they are clear-headed,—but the millionaires and their toadies are blind. The rich men of the country have got to awake from their complacency. It is not consistent with the idea of America that they should revel in their scores or even hundreds of millions while thousands are suffering in poverty. They will be obliged to show that they work for their fellows in order to justify their wealth. They have got to prove it by giving abundantly and by lowering their ostentatious rivalries. It is not necessary to be a communist in order to say that in this republic a man must not be too rich and too selfish."

All of which is true, but we have been called "communist" for a much milder utterance of Bible truth—and by ministers, too.

The Rights of Railroads.

We believe, with the late Judge Black, that "a public highway cannot be private property, and a railroad laid out and built by the authority of the state for the purpose of commerce is as much a public highway as a turnpike road, canal or navigable river. It is the duty of the state to promote intercourse and trade by constructing highways of the best kind. To this end, she may take land and materials which is an exercise of eminent domain. She can build a railroad at her own expense, using the direct agency of her officers, and after it is built she can make it free to all comers, or reimburse the cost by a special tax on those using it, or she may delegate the taking and taxing powers to a corporation or a person, as she always does when she grants a railroad charter. In either case the road belongs to the state, and all the people have a right to use it as common property by the payment of a proper tax. The corporations are merely the agents for the state for the performance of a public duty. If the company may charge what it pleases, then the road is not a public highway; the public has no right in it at all. The railroads being public property in which all the public have equal rights, it is absurd to say that the state has no right to regulate and control them, in the performance of their functions, by such laws as will prevent partiality, plunder and extortion. This is a power of which no free state can disarm itself by any acts of its legislative, judicial or executive officers." These are the opinions of one of the best constitutional lawyers in the United States.

Addison County Honey.

A prominent bee-keeper of Middlebury, who does not want his name published lest he should be "over-run with letters of inquiry," writes: "I was surprised at a statement in this week's WATCHMAN that Aroostook county (Maine) produced more honey than any other county in New England. As you did not give any figures, I am not prepared to contradict you, but I had supposed Addison county (Vermont) to be ahead in the production of white comb honey. Certainly it is ahead in the neatness with which it is put up and its styles of packages, which are not excelled either in this country or Europe. Will you tell us in THE WATCHMAN how many pounds of comb honey Aroostook county has produced? I cannot give exact figures, as some bee-keepers are sensitive, and do not like to tell; but I believe from what I do know that the crop in this county will not fall much below one hundred thousand pounds of comb honey, more than half of which has been produced by two bee-keepers. Has Aroostook county done better than this? or have you been so busy chasing Dr. Loring with a sharp stick, or a sharper pen, that you have overlooked Addison county bee-keepers, who are too busy to blow their own trumpets? The past season has been unusually good throughout the country and the production of honey unusually large, yet the demand is good at paying prices. One of my apiaries, located in Bridport (which, by the way, you may remember visiting a few years ago), consisting of one hundred and thirty hives, will give me this year one hundred pounds to the hive of comb honey, or nearly all comb honey, beside considerable increase. The honey in this county is nearly all put up in one and two-pound sections, which are manufactured here and are the finest produced in the country, and are shipped from this county to all parts of the United States and across the Atlantic. I would like to tell you all about this business, and how it has come about from small beginnings only a few years ago, and will doubtless treble in a few years more, but have neither time or strength to do so."

NOTE BY THE AGRICULTURAL EDITOR.—We are glad to get our friend's letter, but very sorry that his time and strength will not allow him to communicate to our readers the interesting origin and progress of the Addison county bee industry. In regard to Aroostook being the banner honey county of New England, the statement was made upon the (so far as we know) undisputed authority of the agricultural papers of Maine, and their correspondents. We shall send this paper to Mr. Gerrard of Aroostook county, hoping that he will kindly furnish the statistics of honey production in Aroostook for the benefit of our readers, and of bee-keepers generally. Our Middlebury friend adds to his letter the following notice: "The Champlain Valley Bee-keepers' Association (formerly known as the Addison County Bee-keepers' Association), will hold its annual meeting at the Addison house, Middlebury, Vt., the second Thurs-

day in January, 1884. All bee-keepers are invited. J. E. Crane is president. Our secretary, T. O. Brookins, has died since our last meeting."

Improvement in Common Cattle.

The Breeder's Gazette says there has been a marked degree of improvement in the quality of the so called scrub, or common stock of the country, within the past few years, and that every farmer is richer to-day because of the influences of blood derived from the imported breeds. "Grades," he says, "and the grades of grades, to the tenth generation—little drops of good blood diluted over and over again, but never lost—have been making their influence felt, ramifying and reaching through thousands of dividing and interlacing channels, the great body of native live stock, and lifting the whole to a higher plane. The process has been slow, and the results meagre, compared to what would have been the case had advantage been everywhere taken of pure-bred animals for breeding purposes, but nevertheless, the advance has been a most gratifying one, and its advantages are apparent whenever a pure cross is now made upon the native stock. The foundation has been improved, and, when given a chance, the fraction of good blood back asserts itself with remarkable vigor and certainty. The grades are better, and approach nearer the perfect standard, because of this under-current of good blood which is widening and deepening everywhere."

All that the Gazette says in the above extract is true, but it is very surprising that its editor should ignore the main factor in the improvement of American farm stock completely, as he here does. While crossing with the choice representatives of imported breeds has done much to improve our common stock, the chief gain in that direction is due, without any doubt, to the great advance made during the past twenty-five years in the care, feeding and selection of our farm animals. Without these, the foreign breeds cannot be kept up. The farmers who had them soon found this out, and it did not take the intelligent American farmer long to reason that if these breeds were produced (as they certainly were) by careful feeding, handling, and selection of the common cattle of Europe (from which our own "native" stock had their origin), then our common cattle could be improved in the same way. He did not neglect the immediate gain to be got by crossing the imported stock upon his own, but as he had to keep both thoroughbreds and grades better than he formerly kept his cattle in order to derive the full benefit of the cross, he extended this improved treatment to his common stock. Having also the foreign standards of excellence before his eyes he made his selections among his young stock to correspond, and the whole result is seen, not in the grades only, but in our uncrossed natives.

Blundering Journalism.

We have laughed a little, occasionally, at the absurdities printed in the Boston Cultivator under the head of "Popular Science." It would seem impossible that so many errors could be collected together in so small a space, week after week. Still, perhaps an agricultural journal (even though it claims the first place) ought not to be expected to be posted in all departments of wide-extending science. If it keeps reasonably clear of error in its own specialty it does well. But the Cultivator does not. Witness the two following items from a recent issue, under the "Horticultural" head:

"The word *pippin*, now so largely used in the names of certain varieties of apples, as Newtown pippin, etc., is an Old English word meaning simply a tart or acid apple. The application of the word to the naming of fruit is unmeaning. The same is true of *codling*, as in *Kewick codling*, etc. *Codling* meant in Shakespeare's time a sour or immature apple. This derivation of the word explains the meaning and origin of the term *codling* moth."

"Several varieties of hardy Canadian apples are becoming popular among our northern boundaries. Among the most deserving seem to stand the Wealthy, Edgar Red Streak and Fameuse Sucree."

An apple "pip" is an apple seed. From this comes "pippin," which originally meant simply a seedling. But as only choice seedlings were preserved and propagated, "pippin" came in time to mean an excellent or choice seedling. It has been in the course of time applied to so many varieties that the term has now no definite meaning at all. "Codling," or "codlin," means simply a sour cooking apple, as distinguished from a dessert apple.

The second item is still worse. The Wealthy is of Minnesota origin, the Edgar Red Streak is of Illinois origin, and the Fameuse (not "Fameuse") Sucree, though a fine apple, has never yet been propagated for sale, and the only bearing trees in existence are the original half-dozen in Mr. Prudhomme's orchard near Montreal. We have nine young trees of this variety from scions we took two years ago from one of Mr. Prudhomme's trees, and these nine are all the genuine trees of this variety in the United States. By a mistake a lot of scions of the old Fameuse were distributed, some five years ago, as Fameuse Sucree.

A New Dairy Process.

Hardly has the centrifugal creamer become known amongst us before another plan appears, of Yankee origin, which promises to supplant it. This is the "vacuum process," invented by E. R. Powell, and now in practical and successful operation in Chittenden county. The New England Farmer says of this new method:

"The new 'vacuum' system, as it is called, aims to utilize every ounce of the food material contained in the milk, and from recent reports received from the company there seems to be much ground for hoping that the highest anticipations will be realized. A sample of skim cheese recently received from the factory was tested by a dealer who, knowing nothing of its origin or history, pronounced it

fine a quality of cheese as he would need to buy to suit the average taste of his customers, and of ten retail customers who sampled it, seven pronounced it good, two perfect, and one poor, which is getting as many credits as any sample would be likely to, tested by ten customers of average tastes. Not claiming to be expert in judging of the quality of cheese, we expressed to Mr. G. W. Whitney, a successful butter and cheese-maker, a desire that he should visit the factory and examine the goods made, and the process of manufacture, and send us a report of his impressions. The following letter was written by Mr. Whitney, under date of October 14: 'Having spent a day in visiting the factory at Colchester (Vermont), and witnessing the manufacture of butter and cheese by the new vacuum system invented by Mr. E. R. Powell, I was much surprised at the result. The first lot of milk made up weighed fifteen hundred pounds, and made seventy-seven pounds of butter, which, allowing me to be a judge, was gilt edged, making a trifling over five pounds to the one hundred pounds of milk—a large yield. The butter, after being subjected to a high temperature, was put into the milk, which was made into cheese. The cheese on hand consisted of a little more than one month's make, and boring several, I am compelled to believe them a good marketable article. The pumping out of the air over the milk, the inventor claimed, was the cause of the large yield of butter, and that by relieving the pressure of air, all the small butter globules would rise, when they would not if the air pressure was left on. The milk when put into the tank was heated to one hundred and five degrees to free it from impurities, and then cooled with ice water, remaining in the tank about twenty-four hours before being manufactured. By subjecting the milk to this heat and vacuum system, it is found, that after removing all the butter globules, there still remains a sufficient substance of a fatty nature in the milk to produce a good quality of cheese, if it can be taken up in the curd, and it seems to be a fact that by this system, such is the case. The manufacturer claimed to make fourteen pounds of butter and cheese from one hundred pounds of milk. The cows furnishing the milk to this factory are common cows that have lived on pasturing alone. But the most surprising part of all remains to be told. I was shown a can of sugar, of about two and one-half pounds, said to be the result of boiling down fifty pounds of this skim-cheese which, by this system the fatty matter, which has always been so troublesome in the manufacture of milk sugar, by evaporation is removed from the milk. This alone is sufficient to give the heat and vacuum system the lead of all others in the market.' Since the above was written we learn that a similar factory has been started in Mr. Whitney's town, where the milk of from one hundred and fifty to two hundred cows will be worked up by the new process the coming winter."

An Agricultural College.

We take the following from the report of the Michigan Agricultural College to the National Grange: "Everything is taught in the English language. Neither Greek, nor Hebrew, nor Latin, nor French, nor German. Students from our own state, as well as from all the rest of the world, attend free of charge for tuition. Board is paid for at cost by the students. All of them are required to labor on the farm, in the garden, greenhouse or somewhere else, at least three hours each day for five days in a week. For this work they are paid by the state at the rate of eight cents per hour. The experience of these twenty years has seemed to demonstrate the fact that this labor quickens the mental energies. And the students that pass out from this college do so with a loyalty to, and a respect for, labor and the laborer. They start out with more of a set purpose to do something to make a living, and are not so much imbued with the idea that the world owes them a living because of their education. The commencement orations are filled with sentiments of respect for the productive industries of the country. The school year is of nine months' duration. The long vacation occurs in the winter. This affords the students an opportunity to teach and secure funds to aid in defraying expenses. The president and the professors are required by the board of agriculture to hold at least six farmers' institutes each year. Of course this is done during the winter vacations. The whole number of students in attendance during the year 1882 was two hundred and sixteen. The average for ten years has been very nearly two hundred. A large number of these never complete the course. Some of them come in as specialists to study some specific subject. Of the two hundred and seventy-two graduates one hundred and three are farmers, sixty others are engaged in various industrial pursuits; one hundred and nine are in the professions, or engaged in commercial pursuits. Of course all of the graduates are comparatively young men."

WHEAT IN NEW HAMPSHIRE.—Harlan Flint of Hanover raised this year eighty bushels of wheat on five acres of ground, and Uel Spencer of the same town two hundred and six bushels from four and a half acres, while the town farm crop averaged forty-three bushels per acre. That raised by Mr. Flint was winter wheat, and Spencer's, White Russian. A Meredith correspondent of the Laconia Democrat says that eight farms adjoining each other, in that town, have produced this year five hundred and twenty-four bushels of wheat. Reports from all sections of the state show that a great yield of wheat has been secured wherever the crop has been sown.

"On the whole, we can't see how Professor Collier could have had a much more complete vindication and victory, or Dr. Loring a more signal defeat, and we shall wait with some curiosity to see whether congress will take any hand in the fight for the deposed chemist, whose zeal and fidelity in this work gained his dismissal from his position as chemist of the department of agriculture, at the hands of its head, the politico-agricultural orator of the fairs and head and front of the great New England Agricultural Society, Dr. Loring."—Mr. Tunkham, in Freeman.

While the "Jack at all trades" idea is not to be encouraged on the farm, it yet remains true that a certain amount of mechanical skill, which can be made available in times of emergency, is a very desirable acquisition to the farmer. Many a little break in machinery or implement can be repaired in less time than would be consumed in going to a mechanic to get the job done, and effecting a saving in time as well as the payment of the labor of the mechanic.

BOTH learning and agriculture ought to be encouraged by government, and manufacturing

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